Nokia Customer Care
2115i/2116/2116i (RH-66)
Mobile Terminals

Service Tools

Issue 1 03/2005
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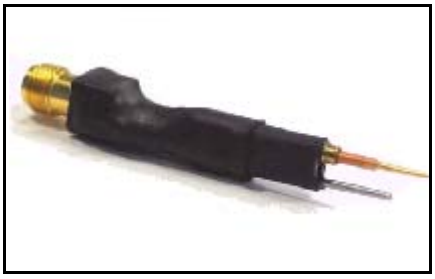
2115i/2116/2116i Service Tools

AAS-10A RF Probe

The AAS-10A allows you to troubleshoot the handset. You can use the probe with the XRS-6 RF Cable.

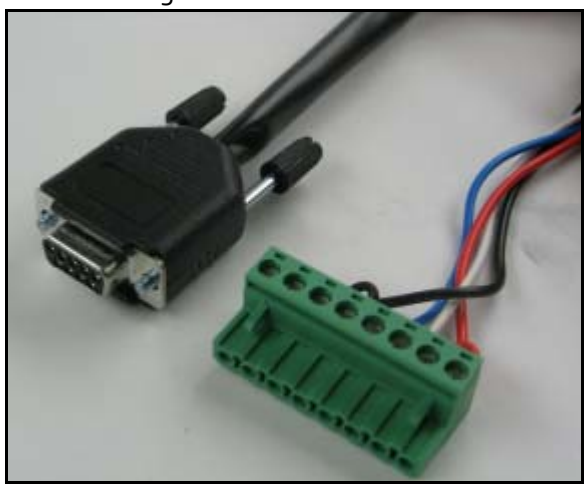


CA-5S DC Service Cable

The CA-5S is used for energy management calibration with the JVB-1 Docking Station.

CA-10PS Service Power Cable

The CA-10PS is used to provide DC power to the SS-13 Tuning Station from a Keiphley power supply for CDMA tuning.



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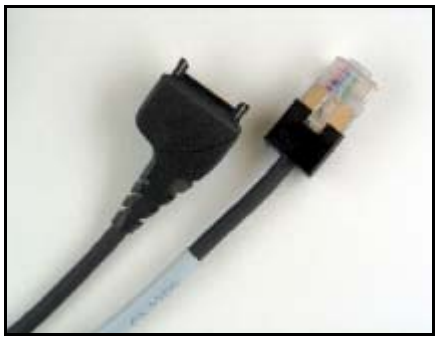
CA-22DS Flash Cable

The CA-22DS allows bottom connector flashing using the FLS-4S Flash Adapter or the FLC-20 Flash Device.



CA-25RS RF Test Cable

The CA-25RS test cable is used for RF engine testing and tuning. This cable snaps directly on the mobile terminal's RF connector and converts the output to an surface mounting assembly connector. Removal of the A-cover is required.

CA-41PS Service Power Cable

The CA-41PS provides DC power to the docking station from the FPS-10 Flash Prommer or FPS-11 Multiflasher.

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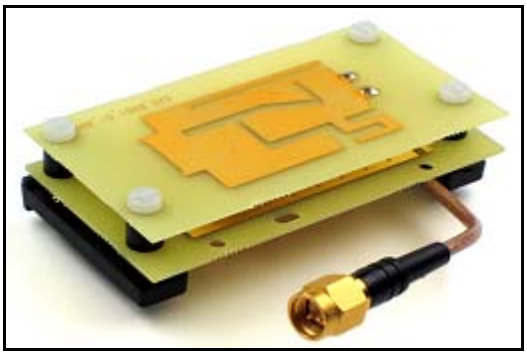
CPL-8 GPS Antenna Coupler

The CPL-8 allows authorized service centers to test the GPS antenna during handset troubleshooting. The coupler is attached to (and detached from) the MJF-28 Docking Station Adapter.



Note: The MJF-28 and the coupler assembly fit into the JXS-1 Shield Box

DAU-9S FBUS/MBUS Cable

The DAU-9S is a general purpose cable that supports FBUS/MBUS communication between a Mod-10 device and a PC.

DAU-9T FBUS Cable

The DAU-9T provides a connection from the serial port of the computer to the Pop-port™ connector of the mobile terminal.

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DKU-5F Flash Cable

The DKU-5F is a single-cable flashing solution for CDMA handsets that include Pop-port™ connectors. This cable supports Diego, Phoenix, and UPST service tools.

Note: Customers using the UPST application also require a Spirent protection key (dongle).

Note: The DKU-5F is not supported in the APAC and LTA markets.

FLA-30 Flash Adapter

The FLA-30 allows power and flash connections through the battery compartment.

FLS-4S Flashing Device

The FLS-4S allows Point of Sale (POS) locations to flash the handset and power the FLA-44 Flash-loading Adapter. The FLS-4S works with the XCS-1 Service Cable (not included).

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FPS-8 Flash Prommer

The FPS-8 is used for mobile terminal flashing at authorized service centers.

Note: The FPS-8 is no longer available in some regions. For more information, see "FPS-10 Flash Prommer".

FPS-10 Flash Prommer

The FPS-10 replaces the FPS-8 Flash Prommer. The FPS-10 allows the flash code to be pre-loaded into the unit's memory and then can be flashed directly to the handset at high speeds.

JBA-12 Audio Box

The JBA-12 is required for audio testing at authorized service centers.

JBV-1 Docking Station

The JBV-1 connects flash prommers. The docking station can be powered by the FPS-8 Flash Prommer or by an external power supply.

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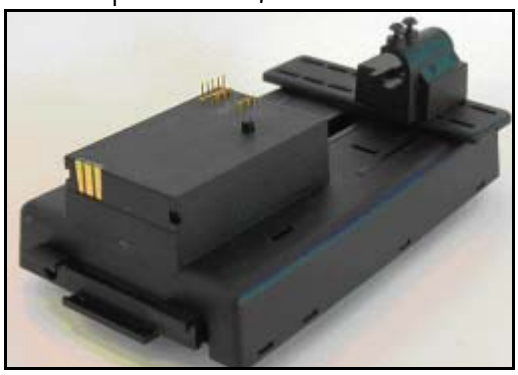
MJ-42 Module Test Jig

The MJ-42 allows PWB-level service and troubleshooting for authorized service centers. It supports regulated and unregulated DC input voltages and includes Local and Normal Mode operations, a headset jack for audio tests, a RUIM card reader, and a second DC input for VCHAR used in EM tuning. The MJ-42 also supports simultaneous RF connections to the CDMA engine. A completely functional UI module is provided on the right side.

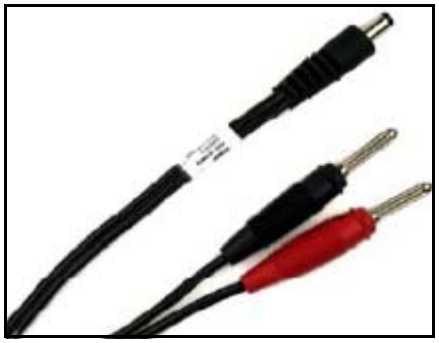
MJF-17 Docking Station Adapter

The MJF-17 works in conjunction with the JBV-1 Docking Station and the FPS-8 Flash Prommer to enable tuning, testing, and flashing. The MJF-17 supports the LYNX battery interface, which does not require BTEMP, and also has a built-in RUIM card reader.



PCS-1 Power Cable

The PCS-1 is used to connect the service tools (e.g., JBV-1 Docking Station, MJS-82 Service Jig) to an external power supply.



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PKD-1 Software Security Dongle

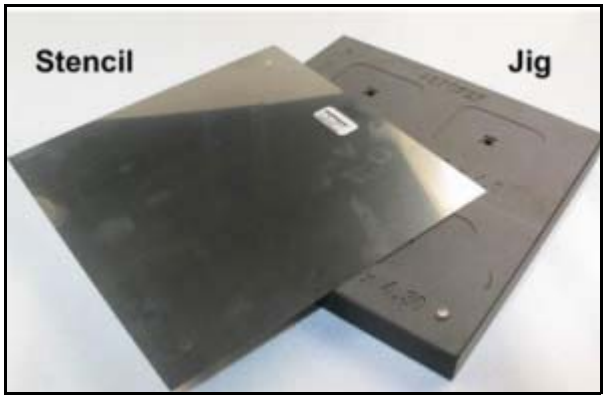
The PKD-1 is a hardware dongle that, when connected to the parallel (LPT) port of the PC, enables the use of the service software. It is not possible to use the service software without the dongle. Printers or other peripheral devices can be connected to the PC through the dongle, if needed.

Caution: Make sure that you have switched off the PC and the printer before making connections.

Caution: Do not connect the PKD-1 to the serial port. You may damage your PKD-1 and/or your PC.

RJ-18 Power Amp LGA Rework Jig and ST-16 PA Stencil

The ST-16 stencil allows rework on LGA-type components that do not have pre-tinned pads. Both power amps require the use of this stencil. The stencil is designed to specifically fit the PA pad configuration and dimensions. The RJ-18 fits the physical dimension of the PAs.



Note: Used in conjunction with the SPS-1 Paste Spreader.

Note: The RJ-13 is not intended to serve as a test jig.

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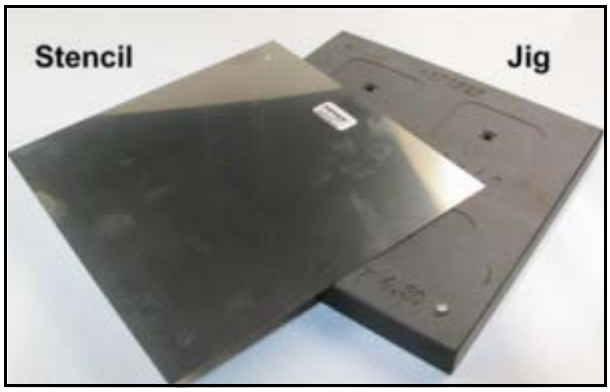
RJ-32 Rework Jig

The RJ-32 serves as a holder for PWB component de-soldering and soldering.

RJ-64 LNA LGA Rework Jig and ST-24 Stencil

The ST-24 stencil allows rework on LGA-type components that do not have pre-tinned pads. The LNA requires the use of this stencil. The stencil is designed to specifically fit the pad configuration and dimensions while the rework jig fits the physical dimension of the LNA.



Note: Used in conjunction with the SPS-1 Paste Spreader.

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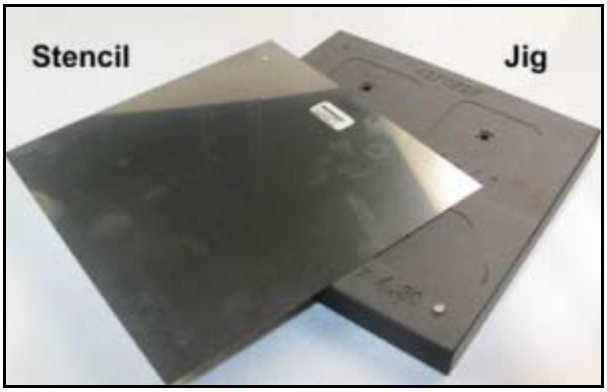
RJ-65 TX IC LGA Rework Jig and ST-25 Stencil

The ST-25 stencil allows rework on LGA-type components that do not have pre-tinned pads. The Tx RF IC requires the use of this stencil. The stencil is designed to specifically fit the IC pad configuration and dimensions while the rework jig fits the physical dimension of the IC.



Note: Used in conjunction with the SPS-1 Paste Spreader.

SA-54 RF Calibration Adapter

The SA-54 adapter is used to replicate the mobile terminal's RF when calculating cable path losses.

SF-18 Service Battery

The SF-18 replaces the mobile terminal battery to provide continuous power to the handset. This device is primarily intended for reliability and EM testing. It can serve as a flash adapter without voltage regulation and includes over-voltage and over-current protection. An external DB9 connector allows you to add a sense line. A slide switch allows for Local and Normal Modes.

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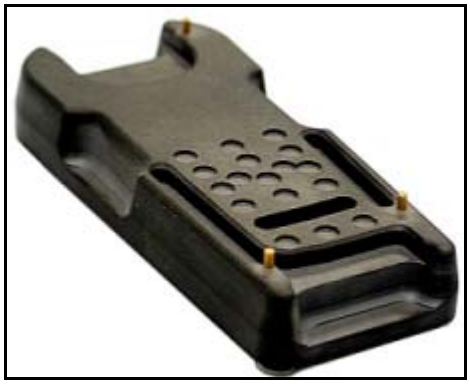
SS-13 Tuning Docking Station

The SS-13 is used with the MJF-x/DA-x Docking Station Adapters (shown with MJF-17) for CDMA RF autotuning.

SS-38 Alignment Jig

The SS-38 is used to align the adhesive domesheet assembly onto the PWB in the proper location during domesheet replacement.



SX-4 Smart Card

The SX-4 is used with the FPS-10 Flash Prommer for DCT4 flashing security.

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XCS-4 MBUS/FBUS Cable

The XCS-4 is a general purpose cable for flashing and communicating with the mobile terminal. It is used to connect the FPS-8 Flash Prommer to the docking station adapter or the service jig.

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Flashing, Testing, and Tuning

These setups are designed for use with Phoenix Service Software. Both manual testing and automated tuning are permitted.

Service Configuration 1: Point of Sales Flashing

Item	Name	Type
1	FLS-4S Flash Device (sales pack) (ACF-8 Power Supply is included in the FLS-4S sale pack)	FLS-4S
2	Service Cable	CA-22DS
	Point-of-sale service software	Diego Phoenix

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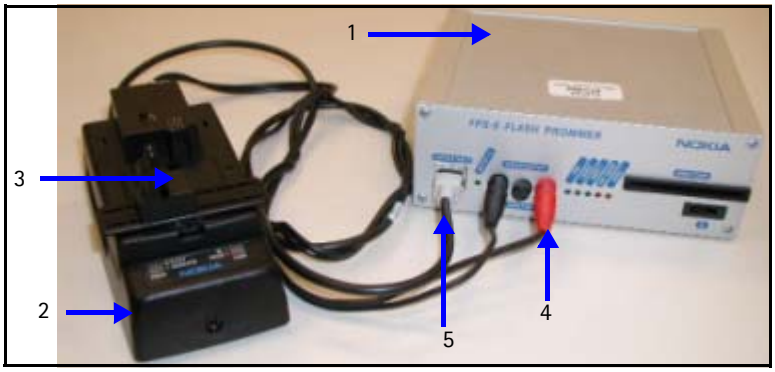
Service Configuration 2: Flash Programming Using Docking Station

FPS-8 Setup



Item	Name	Type
1	Flash Prommer sales pack: Service Cable USB Cable Power Supply	FPS-8 CA-10DS AXS-4 ACF-8
2	Docking Station	JBV-1
3	Docking Adapter	MJF-17
4	DC Power Cable	PCS-1
5	Modular Cable	XCS-4
	Software Security Dongle (not shown)	PKD-1
	Service software (not shown)	CDMA Phoenix

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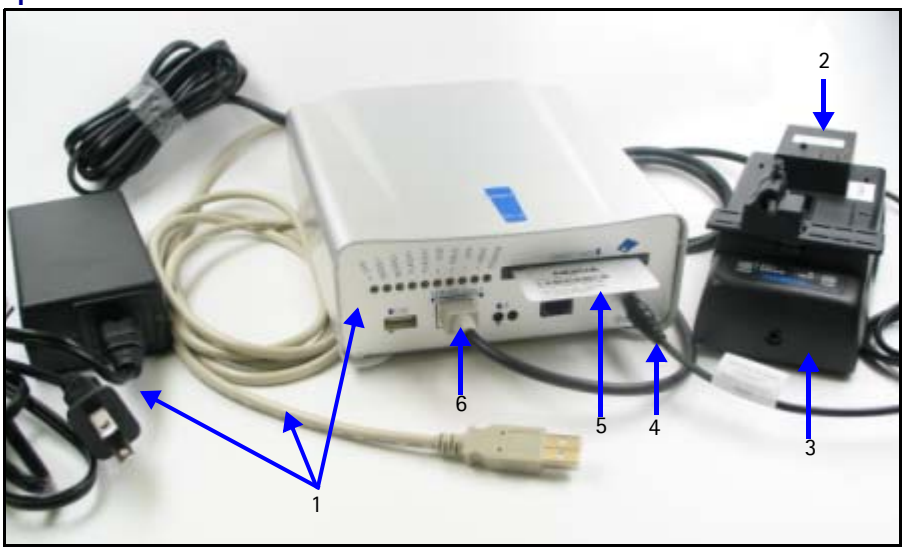
FPS-10 Setup



Item	Name	Type
1	Flash Prommer sales pack: USB Cable Power Supply	FPS-10 CA-31D AC-33
2	Docking Station Adapter	MJF-17
3	Docking Station	JBV-1
4	Service Power Cable	CA-41PS
5	Smartcard	SX-4
6	Modular Cable	XCS-4
	Service Power Cable (not pictured)	CA-10PS
	SoftwareSecurity Dongle (not pictured)	PKD-1
	Service software (not pictured)	CDMA Phoenix

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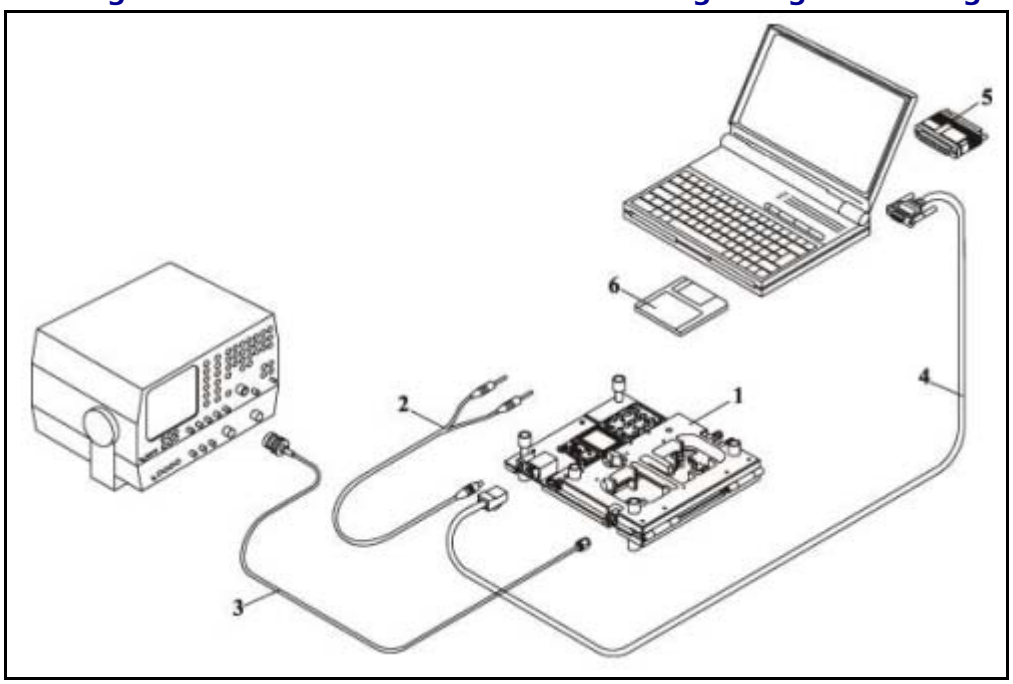
Service Configuration 3: Covers-off Troubleshooting Using Service Jig



Item	Name	Type
1	Service Jig	MJ-42
2	DC Power Cable	PCS-1
3	RF Test Cable	XRS-6
4	Service M/FBUS Cable	DAU-9S
5	Software Security Dongle	PKD-1
6	Service Software for Level 3 service	CDMA Phoenix

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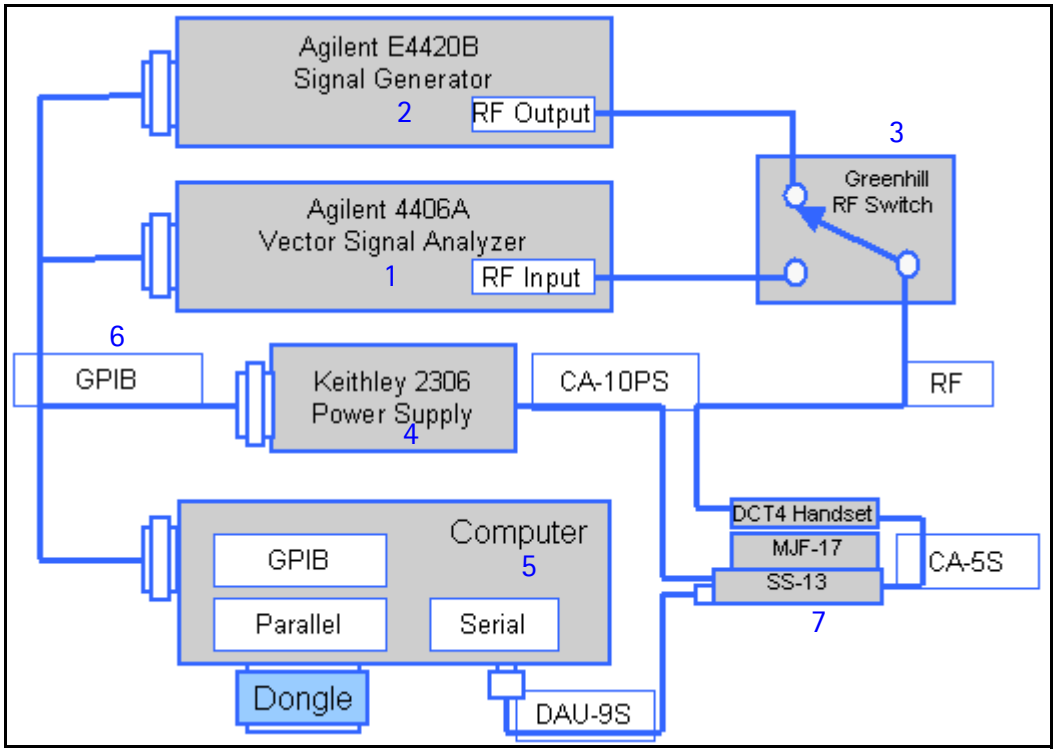
Service Configuration 4: Automated Tuning and Alignment

This setup is used for tuning of the handset at Nokia Authorized Service Centers.



Item	Name	MFR	Model #	QTY	Comment
1	Vector Signal Analyzer	Agilent	E4406A	1	
2	Signal Generator	Agilent	E4420B	1	Digital signal generator with high-stability oscillator and high-spectral purity
3	RF Series	GreenHill	TVi9901	1	
4	Power Supply	Keithly	K2306	2	Programmable with sense wire
5	Win2000 PC				Dell with Pentium III or above, network card, 256M RAM, 20GB HD, CD-ROM, etc.
6	GPIB Interface	NI	GPIB-USB-A	2	USB to GPIB adapter (184983G-01)
7	Docking Station	Nokia	SS-13	1	For DCT4 handset tuning. SS-13 is specifically designed for CDMA RF tuning.

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